

reference"). The Examiner objected to claims 6-7, 15-16, and 18-20 as being dependent on rejected base claims, and indicated that these claims would be allowable if rewritten to include the limitations of the base claims and any intervening claims. Applicants gratefully acknowledge the indication of allowability of claims 6-7, 15-16, and 18-20.

Claims 1-5, 8-13, 14, 17 and 25-31 are now pending in this application. Applicants have amended claims 1 and 14, and cancelled claims 6, 7, 15, 16, 18, 19, 20 and 21-24. Applicants have added new independent claims 25-29 which correspond to allowable claims 6, 7, 15, 16 and 18, and added new dependent claims 30 and 31 which correspond to allowable claims 19 and 20. It is therefore respectfully submitted that the new claims 25-31 are allowable. Moreover, in view of the foregoing and further in view of the following it is respectfully submitted that remaining claims 1-5, 8-14, and 17 are allowable over the references cited by the Examiner. Reconsideration and withdrawal of the rejections of the amended claims under 35 U.S.C. §§ 102(e) and 103(a) are therefore earnestly solicited.

The Invention

The present invention embodies systems and methods for initiating scheduled program processing functions used in, for example, video decoders that receive packetized program information from different broadcast sources, wherein the packetized program information from the individual broadcast sources contains program content, system timing data, and program specific information data. A processor is provided for identifying and acquiring the system timing data which comprises a current time reference indication that is provided by a broadcast source in the packetized program information. The processor **adaptively** derives scheduling time clocks based on the current time references received from the broadcast

sources to initiate scheduled processing functions for programs derived from the particular broadcast sources.

Traversal of the Rejections

I. The Rejection of the Claims under 35 U.S.C. § 102(e)

The Examiner rejected claims pending claims 1-5, 8-12, 14 and 17 under 35 U.S.C. § 102(e) in view of Yoshinobu et al., stating that Yoshinobu et al. teaches all of the elements of these claims. Applicants respectfully traverse this rejection.

Yoshinobu et al. is directed to a completely different problem than is the present invention. In particular, the present invention requires adaptive derivation of scheduling time clocks from current time references of multiple sources of packets. In contrast, the system of Yoshinobu et al. is primarily concerned with time shifts due to geographic locations. Thus, the motivation for providing the inventive arrangement is completely different from that of the Yoshinobu et al. reference since the present invention is concerned with relative scheduling of programming from multiple broadcast sources which requires different time bases.

Applicants have amended independent claims 1 and 14 to overcome this rejection, all of the other claims being ultimately dependent on claim 1 or 14. In particular, Applicants have specifically recited in independent claims 1 and 14 that the inventive processor **adaptively** derives a scheduling time clock based on the current time reference indication provided by the broadcast source. Support for this limitation to the claims is found on page 8, lines 5-11 of the application. Thus, it is clear that while each of the packets from the broadcast sources contains timing data, the scheduling time clock is changed, i.e. it is adapted, based on the particular timing data received from the separate sources.

This feature of the invention is neither taught, nor remotely suggested by Yoshinobu et al., or the art as a whole. In contrast, Yoshinobu et al. teach that data broadcast in a packet contain current time information. See Yoshinobu et al. at col., 9, lines 3-6. The system of

Yoshinobu et al. provides that, since satellite broadcasts cover broad geographic districts (for example, different zip codes, see Yoshinobu et al., at col. 9, lines 10-16), the difference in times between these districts creates the need to adjust the current time for each district that receives the packet. See Yoshinobu et al. at col. 9, lines 17-20. In this case the Yoshinobu et al. system merely adds or subtracts the difference in time to and from the received standard time to calculate the present time in that district. See Yoshinobu et al. at col. 9, lines 17-21.

Thus, Yoshinobu et al. is directed to a completely different problem than is the present invention. The present invention, as now claimed, requires adaptive derivation of scheduling time clocks from current time references of multiple sources of packets. The motivation for providing the inventive arrangement is therefore completely different from that of the Yoshinobu et al. reference in that the system of Yoshinobu et al. is chiefly concerned with time shifts due to geographic locations, while the present invention is concerned with relative scheduling of programming from multiple broadcast sources which requires different time bases.

Therefore, it is respectfully submitted that Yoshinobu et al. do not anticipate the current claims as amended. Reconsideration and withdrawal of the rejection of the claims under 35 U.S.C. § 102(e) is earnestly solicited.

II. The Rejection of the Claims under 35 U.S.C. § 103(a)

The Examiner rejected claim 13 over Yoshinobu et al. in view of Thomas et al. stating that Thomas et al. additionally teach forming a composite program guide from multiple broadcast sources, and the use of PIDs from multiple sources wherein packetized data is transmitted for program guides. The Examiner then finds that it would have been obvious to those of ordinary skill in the art at the time the invention was made to modify the program information broadcasting methods of Yoshinobu et al. using the data management and

distribution methods of Thomas et al. to obtain the claimed invention. Applicants respectfully traverse this rejection.

Thomas et al. add nothing to Yoshinobu et al., as discussed above, which could render claim 13 obvious. In particular, Thomas et al. is primarily concerned with distributing data in multiple formats, but not with scheduling program functions based on different current time references. See Thomas et al at col. 3, lines 42-51. Moreover, Thomas et al. teaches that it would be desirable to provide a plurality of data configurations for storing program guides in a global database. See Thomas et al. at col. 3, lines 48-52.

Moreover, Thomas et al. do not teach or suggest the limitations of claim 13 wherein it is stated that the method of this claim requires:

forming said composite program guide information to
associate a particular current time reference indication
with a particular individual broadcast source[.]

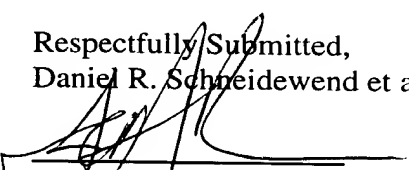
See claim 13, lines 33-35.

Thus, Yoshinobu et al. in view of Thomas et al. do not teach or suggest the limitations of claim 13. Nor is there any motivation in these reference, or the art as a whole, to combine the systems and methods taught therein to obtain the inventive method of claim 13 which requires forming a composite program guide in association with a current time reference of a particular broadcast source from among many broadcast sources received at a video decoder. Thus, claim 13 is not obvious. Reconsideration and withdrawal of the rejection of the this claim under 35 U.S.C. § 103(a) are also earnestly solicited

Conclusion

Applicants have invented novel and unobvious systems and methods for initiating scheduled program processing functions which are neither taught nor suggested by the art of record. The art cited by the Examiner but not applied to reject the claims has been considered, and it is respectfully submitted that it also neither anticipates nor renders obvious the claimed invention. A prompt notice of allowance is therefore respectfully requested. Please charge any fee associated with this matter to Deposit Account No. 07-0832.

Respectfully Submitted,
Daniel R. Schneidewend et al.

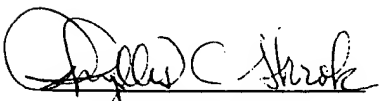

Jeffrey M. Navon
Reg. No.: 32,711
Attorney for Applicant
(609) 734-9419

Date: July 23, 2002

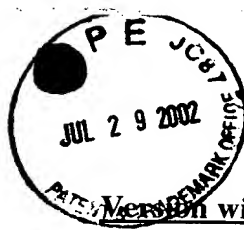
Patent Operations
THOMSON multimedia Licensing Inc.
P.O. Box 5312
Princeton, NJ 08543-5312

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Phyllis C. Skrok

July 23, 2002
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--1.(Amended) A system for initiating scheduled program processing functions for use in a video decoder receiving packetized program information from different broadcast sources, said packetized program information from an individual broadcast source containing program content, system timing and program specific information data, comprising:

selection means for selecting a desired program produced by a broadcast source;

means for tuning to receive packetized program information containing said program; and

a processor for identifying and acquiring system timing data comprising a current time reference indication provided by said broadcast source in said packetized program information wherein

said processor adaptively derives a scheduling time clock based on a current time reference indication produced by a particular broadcast source and uses said derived time clock in initiating scheduled processing functions for programs derived from said particular broadcast source.--

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Please cancel claims 6 and 7 without prejudice to the Applicants.

--14.(Amended) A system for initiating scheduled program processing functions using an electronic program guide for use in a video decoder receiving packetized program information from different broadcast sources, said packetized program information from an individual broadcast source containing program content, a current time reference indication and program specific information data, comprising:

selection means for selecting a desired program produced by a broadcast source;

means for tuning to receive packetized program information containing said desired program;

a processor for initiating scheduled processing of said desired program in response to a user selection made via a displayed electronic program guide, said processor initiates said scheduled processing using a time clock adaptively derived from a current time reference indication produced by a particular broadcast source associated with said desired program; and

means for displaying a second time clock different to said derived time clock.--

Please cancel claims 15, 16, 18-20 and 21-24 without prejudice to the Applicants.

Please add the following new claims 25-31.

--25.(New) A system for initiating scheduled program processing functions for use in a video decoder receiving packetized program information from different broadcast sources, said packetized program information from an individual broadcast source containing program content, system timing and program specific information data, comprising:

selection means for selecting a desired program produced by a broadcast source;

means for tuning to receive packetized program information containing said program; and

a processor for identifying and acquiring system timing data comprising a current time reference indication provided by said broadcast source in said packetized program information wherein

said processor derives a time clock based on a current time reference indication produced by a particular broadcast source and uses said derived time clock in initiating scheduled processing functions for programs derived from said particular broadcast source, wherein said second time clock is a filtered time clock to prevent a user from seeing an abrupt time change discontinuity.

26.(New) A system for initiating scheduled program processing functions for use in a video decoder receiving packetized program information from different broadcast sources, said packetized program information from an individual broadcast source containing program content, system timing and program specific information data, comprising:

selection means for selecting a desired program produced by a broadcast source;

means for tuning to receive packetized program information containing said program; and

a processor for identifying and acquiring system timing data comprising a current time reference indication provided by said broadcast source in said packetized program information wherein

said processor derives a time clock based on a current time reference indication produced by a particular broadcast source and uses said derived time clock in initiating scheduled processing functions for programs derived from said particular broadcast source, wherein said second time clock is updated during periods when said second time clock is not displayed to prevent a user from seeing an abrupt time change discontinuity.

27.(New) A system for initiating scheduled program processing functions using an electronic program guide for use in a video decoder receiving packetized program information from different broadcast sources, said packetized program information from an

individual broadcast source containing program content, a current time reference indication and program specific information data, comprising:

selection means for selecting a desired program produced by a broadcast source;

means for tuning to receive packetized program information containing said desired program;

a processor for initiating scheduled processing of said desired program in response to a user selection made via a displayed electronic program guide, said processor initiates said scheduled processing using a time clock derived from a current time reference indication produced by a particular broadcast source associated with said desired program; and

means for displaying a second time clock different to said derived time clock wherein said second time clock is a filtered time clock to prevent a user from discerning a time change discontinuity.

28.(New) A system for initiating scheduled program processing functions using an electronic program guide for use in a video decoder receiving packetized program information from different broadcast sources, said packetized program information from an individual broadcast source containing program content, a current time reference indication and program specific information data, comprising:

selection means for selecting a desired program produced by a broadcast source;

means for tuning to receive packetized program information containing said desired program;

a processor for initiating scheduled processing of said desired program in response to a user selection made via a displayed electronic program guide, said processor initiates said scheduled processing using a time clock derived from a current time reference indication produced by a particular broadcast source associated with said desired program; and

means for displaying a second time clock different to said derived time clock wherein said second time clock is updated during periods when said second time clock is not displayed to prevent a user from discerning a time change discontinuity.

29.(New) A system for initiating scheduled program processing functions using an electronic program guide for use in a video decoder receiving packetized program information from different broadcast sources, said packetized program information from an individual broadcast source containing program content, a current time reference indication and program specific information data, comprising:

selection means for selecting a desired program produced by a broadcast source;

means for tuning to receive packetized program information containing said desired program;

a processor for initiating scheduled processing of said desired program in response to a user selection made via a displayed electronic program guide, said processor initiates said scheduled processing using a time clock derived from a current time reference indication produced by a particular broadcast source associated with said desired program; and

means for displaying a second time clock different to said derived time clock, wherein said second time clock is independent of said derived time clock and is received in a dedicated program guide channel.

30.(New) A system according to claim 29, wherein

said second time clock is embedded in the content of said dedicated program guide channel.

31.(New) A system according to claim 29, wherein

said second time clock is presented in said displayed electronic program guide.--